EQUATION
$y = mx + b$ (m = rate, b = y-intercept = starting amount)

Finding Slope from Tables

Activity

slope / rate

Name _____

Date _____ Period 8th

Sally is on the bowling team and needs to practice for the big tournament. The shoe rental is $2 and the cost of each game is $3. Make a table showing the cost for any number of games Sally bowled during a practice session. Graph the data from the table and draw a trend line.

IV: Games
DV: COST

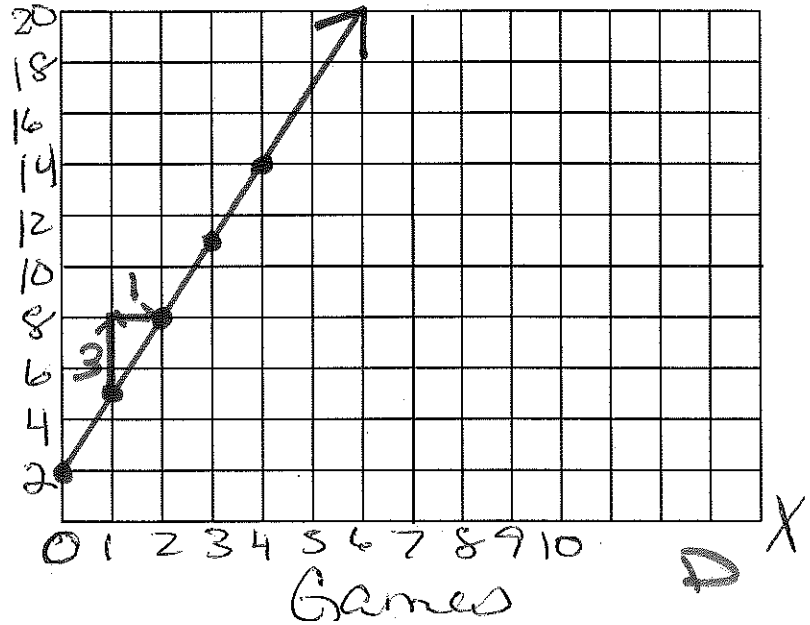
continues at same rate

y = R(Games, $)

x: Games	y: COST
0	2
1	5
2	8
3	11
4	14

(+1, +3) (+1, +3) (+1, +3) (+1, +3)

Cost ($)



1. Using the graph, find the slope of the line.

$\frac{\text{rise}}{\text{run}}$ $\frac{\uparrow 3}{\rightarrow 1}$ Slope = 3 ☆ cost per game Slope

2. How can the values in the table be used to find the slope of the line?

$\frac{\Delta y}{\Delta x}$ $\frac{\text{difference in y's}}{\text{interval difference in x's}}$

3. What would be a reasonable domain for this situation?

$0 \leq x < \infty$ all real numbers $D \geq 0$

4. What would be a reasonable range for this situation?

$2 \leq y < \infty$ $R \geq 2$

At noon, the temperature was 12° F. For the next six hours, the temperature fell by an average of 3° F an hour. Make a table showing the change in temperature for six hours.

Time (hours)	Temp (°F)
0	12
1	9
2	6
3	3
4	0
5	-3
6	-6

1 < ... > -3

5. What is the independent variable? Time (hours)

6. What is the dependent variable? Temp (°F)

7. Using the table, find the slope of the line.

$\frac{\Delta y}{\Delta x} = \frac{-3}{1} = -3 = m$

8. What would be a reasonable domain for this situation?

$0 \leq x \leq 6$

9. What would be a reasonable range for this situation?

$-6 \leq y \leq 12$